

To Part 1, 18.2.27 – workbook (Workbook):

[Example:

```

...
  <fileVersion lastEdited="4" lowestEdited="4" rupBuild="4017"/>
  <workbookPr dateCompatibility="false" vbName="ThisWorkbook"
defaultThemeVersion="123820"/>
...

```

Comment [CLR1]: deleted

end example]

To Part 1, 18.2.28 - workbookPr (Workbook Properties)

This element defines a collection of workbook properties.

[Example:

```

<workbookPr dateCompatibility="false" showObjects="none"
saveExternalLinkValues="0"
defaultThemeVersion="123820"/>

```

Comment [CLR2]: deleted

end example]

...

<p>date1904 (Date 1904)</p>	<p>Value that indicates whether to use a 1900 or 1904 date base when converting serial values in the workbook to dates. [Note: If the dateCompatibility attribute is 0 or false, this attribute is ignored. end note]</p> <p>A value of 1 or true indicates the workbook uses the 1904 backward compatibility date system.</p> <p>A value of 0 or false indicates the workbook uses a date system based in the 1900 date system, as specified by the value of the dateCompatibility attribute.</p> <p>(See §0 for the definition of the date bases.)</p> <p>The default value for this attribute is false.</p> <p>The possible values for this attribute are defined by the W3C XML Schema boolean datatype.</p>
<p>dateCompatibility (Date Compatibility)</p>	<p>Specifies whether the date base should be treated as a compatibility date base or should support the full ISO 8601 date range.</p> <p>A value of 1 or true indicates that the date system in use is either the 1900 backward compatibility date base or the 1904 backward compatibility date base, as specified by the value of the date1904 attribute.</p> <p>A value of 0 or false indicates that the date system is the 1900 date base, based on the ISO</p>

Comment [CLR3]: deleted

Comment [CLR4]: deleted

Comment [CLR5]: deleted

Comment [CLR6]: inserted

Comment [CLR7]: inserted

Comment [CLR8]: deleted

Comment [CLR9]: deleted

	<p>8601 date range.</p> <p>(See 50 for the definition of the date bases.)</p> <p>The default value for this attribute is true.</p> <p>The possible values for this attribute are defined by the W3C XML Schema boolean datatype.</p>
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Comment [CLR10]: deleted

To Part 1, 18.17.4.1 - Date Conversion for Serial Values

All date values stored in cells within a SpreadsheetML file must be stored in the ISO 8601 format.

SpreadsheetML application can interpret serial-number values in formulas as dates. This subclause describes how serial number values can be converted to date values depending on date base system.

A date that can be interpreted as a numeric value is a *serial value*. This is made up of a signed integer date component and an unsigned fractional time component. Going forward in time, the date component of a serial value increases by 1 each day. A serial value represents a UTC date and time, and, as such backward compatibility, has no timezone information.

Comment [A11]: Note that some changes are being made to this as part of the ISO 8601 profiling work – this paragraph should be updated to match the end results of the profiling work on the same section.

~~Three~~ ~~Two~~ different bases can be used for converting dates into serial values:

Comment [CLR12]: JLS - I'm not sure what this means.

Comment [CLR13]: deleted

Comment [CLR14]: inserted

- In the *1900 date base system*, the lower limit is January 1, -9999 00:00:00, which has serial value -4346018. The upper-limit is December 31, 9999, 23:59:59, which has serial value 2,958,465.9999884. The base date for this date base system is December 30, 1899, which has a serial value of 0.
- ~~In the 1900 backward compatibility date-base system, the lower limit is January 1, 1900, 00:00:00, which has serial value 1. The upper limit is December 31, 9999, 23:59:59, which has serial value 2,958,465.9999884. The base date for this date base system is December 31, 1899, which has a serial value of 0.~~
- In the 1904 backward compatibility date-base system, the lower limit is January 1, 1904, 00:00:00, which has serial value 0. The upper limit is December 31, 9999, 23:59:59, which has serial value 2,957,003.9999884. The base date for this date base system is January 1, 1904, which has a serial value of 0.

Comment [CLR15]: deleted

Comment [JLS16]: Should be deleted as to not confuse with compatibility date bases in Part 4

A serial value outside of the range for its date base system is ill-formed.

[Note: The 1900 date-base system is the preferred system to be used by applications when converting serial values to dates. The use of the ~~1900 backward compatibility or~~ 1904 backward compatibility date-base system should be avoided. *end note*]

Comment [CLR17]: deleted

Comment [JLS18]: Shouldn't this entire paragraph be deleted since conversion logic should be decided by looking at the 1904-attribute

The date-base system is recorded in the Workbook part's XML by the ~~presence or absence of the dateCompatibility and~~ date1904 attributes of the workbookPr element. [Example:

Comment [CLR19]: deleted

Comment [CLR20]: deleted

1900 date-base system: <workbookPr ~~dateCompatibility="0"~~ showObjects="all"/>

Comment [CLR21]: deleted

~~1900 backward compatibility date-base system: <workbookPr dateCompatibility="1" showObjects="all"/>~~

Comment [CLR22]: deleted

1904 backward compatibility date-base system: <workbookPr ~~dateCompatibility="1"~~
date1904="1" showObjects="all"/>

Comment [CLR23]: deleted

end example]

~~For legacy reasons, an implementation using the 1900 backward compatibility date base system shall treat 1900 as though it was a leap year. [Note: That is, serial value 59 corresponds to February 28, and serial value 61 corresponds to March 1, the next day, allowing the (non-existent) date February 29 to have the serial value 60. end note] A consequence of this is that for dates between January 1 and February 28, WEEKDAY shall return a value for the day immediately prior to the correct day, so that the (non-existent) date February 29, 1900, has a day-of-the-week that immediately follows that of February 28, and immediately precedes that of March 1, 1900.~~

~~[Example: For the 1900 date base system:~~

~~The serial value -2338.0000000... represents 1893-08-05~~

~~The serial value 2.0000000... represents 1900-01-01~~

~~The serial value 3687.0000000... represents 1910-02-03~~

~~The serial value 38749.0000000... represents 2006-02-01~~

~~The serial value 2958465.0000000... represents 9999-12-31~~

~~For the 1904 backward compatibility date base system:~~

~~The serial value -3800.0000000... represents 1893-08-05~~

~~The serial value 0.0000000... represents 1904-01-01~~

~~The serial value 2225.0000000... represents 1910-02-03~~

~~The serial value 37287.0000000... represents 2006-02-01~~

~~The serial value 2957003.0000000... represents 9999-12-31~~

~~*end example]*~~

Comment [CLR24]: deleted

To Part 1, 18.17.6.7 - Dates and Times

A date and/or time is stored as an ISO 8601 string.

The date base system is recorded in the Workbook part's XML by the ~~dateCompatibility and~~ date1904 attributes of the workbookPr element. [Example:

Comment [CLR25]: deleted

Comment [CLR26]: deleted

1900 date-base: <workbookPr ~~dateCompatibility~~ date1904="false" showObjects="all"/>

Comment [CLR27]: deleted

1904 backward compatibility date-base: <workbookPr ~~dateCompatibility="true"~~
date1904="true" showObjects="all"/>

Comment [CLR28]: inserted

Comment [CLR29]: deleted

end example]

To Part 1, Appendix A.2

```
<xsd:complexType name="CT_WorkbookPr">
  <xsd:attribute name="date1904" type="xsd:boolean" use="optional" default="false"/>
  <xsd:attribute name="dateCompatibility" type="xsd:boolean" use="optional"
    default="true"/>
  <xsd:attribute name="showObjects" type="ST_Objects" use="optional" default="all"/>
  <xsd:attribute name="showBorderUnselectedTables" type="xsd:boolean" use="optional"
    default="true"/>
  <xsd:attribute name="filterPrivacy" type="xsd:boolean" use="optional" default="false"/>
  <xsd:attribute name="promptedSolutions" type="xsd:boolean" use="optional"
    default="false"/>
  <xsd:attribute name="showInkAnnotation" type="xsd:boolean" use="optional"
    default="true"/>
  <xsd:attribute name="backupFile" type="xsd:boolean" use="optional" default="false"/>
  <xsd:attribute name="saveExternalLinkValues" type="xsd:boolean" use="optional"
    default="true"/>
  <xsd:attribute name="updateLinks" type="ST_UpdateLinks" use="optional"
    default="userSet"/>
  <xsd:attribute name="codeName" type="xsd:string" use="optional"/>
  <xsd:attribute name="hidePivotFieldList" type="xsd:boolean" use="optional"
    default="false"/>
  <xsd:attribute name="showPivotChartFilter" type="xsd:boolean" default="false"/>
  <xsd:attribute name="allowRefreshQuery" type="xsd:boolean" use="optional"
    default="false"/>
  <xsd:attribute name="publishItems" type="xsd:boolean" use="optional" default="false"/>
  <xsd:attribute name="checkCompatibility" type="xsd:boolean" use="optional"
    default="false"/>
  <xsd:attribute name="autoCompressPictures" type="xsd:boolean" use="optional"
    default="true"/>
  <xsd:attribute name="refreshAllConnections" type="xsd:boolean" use="optional"
    default="false"/>
  <xsd:attribute name="defaultThemeVersion" type="xsd:unsignedInt" use="optional"/>
</xsd:complexType>
```

Comment [CLR30]: deleted

...

sm1_CT_WorkbookPr =

```
## default value: false
attribute date1904 { xsd:boolean }?,

## default value: true
attribute dateCompatibility { xsd:boolean }?,

## default value: all
attribute showObjects { sm1_ST_Objects }?,

## default value: true
attribute showBorderUnselectedTables { xsd:boolean }?,
```

Comment [CLR31]: deleted

```

## default value: false
attribute filterPrivacy { xsd:boolean }?,

## default value: false
attribute promptedSolutions { xsd:boolean }?,

## default value: true
attribute showInkAnnotation { xsd:boolean }?,

## default value: false
attribute backupFile { xsd:boolean }?,

## default value: true
attribute saveExternallinkValues { xsd:boolean }?,

## default value: userSet
attribute updatelinks { sml_ST_UpdateLinks }?,
attribute codeName { xsd:string }?,

## default value: false
attribute hidePivotFieldList { xsd:boolean }?,

## default value: false
attribute showPivotChartFilter { xsd:boolean }?,

## default value: false
attribute allowRefreshQuery { xsd:boolean }?,

## default value: false
attribute publishItems { xsd:boolean }?,

## default value: false
attribute checkCompatibility { xsd:boolean }?,

## default value: true
attribute autoCompressPictures { xsd:boolean }?,

## default value: false
attribute refreshAllConnections { xsd:boolean }?,
attribute defaultThemeVersion { xsd:unsignedInt }?

```

To Part 1, N.2 – SpreadsheetML

...

- The conformance attribute was added to the workbook element (**\$Error! Reference source not found.**)
- The controlPr element (**\$Error! Reference source not found.**) was added
- ~~The dateCompatibility attribute was added to the workbookPr element(50)~~
- The drawingHF element (**\$Error! Reference source not found.**) was added

Comment [CLR32]: deleted

Field Code Changed

- The end element (**\$Error! Reference source not found.**) was added
- The left element was deleted

...

To part 4, new section before 10.2 – Workbook. New section entitled “**Formulas**”

Modified text for Date Conversion for Serial Values (Part 1, §18.17.4.1)

This section must be replaced by the following text when interpreting a document of a transitional conformance class:

All date values stored in cells within a SpreadsheetML file are stored in the ISO 8601 format.

For compatibility, a SpreadsheetML application can interpret serial-number values in cells or in formulas as dates. This subclause describes how serial number values can be converted to date values depending on the compatibility mode.

A date that can be interpreted as a numeric value is a *serial value*. This is made up of a signed integer date component and an unsigned fractional time component. Going forward in time, the date component of a serial value increases by 1 each day. A serial value represents a UTC date and time, and, as such, has no timezone information.

Three different bases can be used for converting dates into serial values:

- In the *1900 date base system*, the lower limit is January 1, -9999 00:00:00, which has serial value -4346018. The upper-limit is December 31, 9999, 23:59:59, which has serial value 2,958,465.9999884. The base date for this date base system is December 30, 1899, which has a serial value of 0.
- In the *1900 backward compatibility date-base system*, the lower limit is January 1, 1900, 00:00:00, which has serial value 1. The upper limit is December 31, 9999, 23:59:59, which has serial value 2,958,465.9999884. The base date for this date base system is December 31, 1899, which has a serial value of 0.
- In the *1904 backward compatibility date-base system*, the lower limit is January 1, 1904, 00:00:00, which has serial value 0. The upper limit is December 31, 9999, 23:59:59, which has serial value 2,957,003.9999884. The base date for this date base system is January 1, 1904, which has a serial value of 0.

A serial value outside of the range for its date base system is ill-formed.

[Note: The 1900 date-base system is the preferred system to be used by applications when converting serial values to dates. The use of the 1900 backward compatibility or 1904 backward compatibility date-base system should be avoided. *end note*]

The date-base system is recorded in the Workbook part's XML by the presence or absence of the dateCompatibility and date1904 attributes of the workbookPr element. [Example:

1900 date-base system: <workbookPr dateCompatibility="0" showObjects="all"/>

1900 backward compatibility date-base system: <workbookPr dateCompatibility="1" showObjects="all"/>

1904 backward compatibility date-base system: <workbookPr dateCompatibility="1" date1904="1" showObjects="all"/>

end example]

For legacy reasons, an implementation using the 1900 backward compatibility date base system shall treat 1900 as though it was a leap year. [Note: That is, serial value 59 corresponds to February 28, and serial value 61 corresponds to March 1, the next day, allowing the (non-existent) date February 29 to have the serial value 60. *end note*] A consequence of this is that for dates between January 1 and February 28, WEEKDAY shall return a value for the day immediately prior to the correct day, so that the (non-existent) date February 29, 1900, has a day-of-the-week that immediately follows that of February 28, and immediately precedes that of March 1, 1900.

[Example: For the 1900 date base system:

The serial value -2338.0000000... represents 1893-08-05

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The serial value 38749.0000000... represents 2006-02-01

The serial value 2958465.0000000... represents 9999-12-31

For the 1904 backward compatibility date base system:

The serial value -3800.0000000... represents 1893-08-05

The serial value 0.0000000... represents 1904-01-01

The serial value 2225.0000000... represents 1910-02-03

The serial value 37287.0000000... represents 2006-02-01

The serial value 2957003.0000000... represents 9999-12-31

end example]

To Part 4, new section in 10.2 – Workbook

Additional attribute for workbookPr element (Part 1, §18.2.28)

The following additional attributes can be specified for a document of a transitional conformance class:

Attributes	Description
dateCompatibility (Date Compatibility)	Specifies whether the date base should be treated as a compatibility date base or should support the full ISO 8601 date range.
CompatibilityDate	A value of 1 or true indicates that the date system in use is either the 1900 backward

Comment [CLR33]: inserted

Comment [A34]: This is the original text of this section in IS 29500. Note that some changes are being made to this as part of the ISO 8601 profiling work – this paragraph should be updated to match the end results of the profiling work on the same section.

Comment [CLR35]: inserted

Comment [CLR37]: inserted

Attributes	Description
	<p>compatibility date base or the 1904 backward compatibility date base, as specified by the value of the date1904 attribute.</p> <p>A value of 0 or false indicates that the date system is the 1900 date base, based on the ISO 8601 date range. <i>[Note: In this instance, the date1904 attribute is ignored. end note]</i></p> <p>(See §0 for the definition of the date bases.)</p> <p>The default value for this attribute is true.</p> <p>The possible values for this attribute are defined by the W3C XML Schema boolean datatype.</p>

Comment [A36]: New text, not in Part 1

To Part 4, Appendix D.2

...

- The conformance attribute was added to the workbook element (Part 1, §18.2.27)
- The controlPr element (Part 1, §18.3.1.20) was added
- ~~The dateCompatibility attribute was added to the workbookPr element (Part 1, §18.2.28)~~
- The drawingHF element (Part 1, §18.3.1.37) was added
- The end element (Part 1, §18.8.16) was added

...

Comment [CLR38]: deleted